



2008 Integrated Energy Policy Report Update

California Energy Commission
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2008 IEPR UPDATE TOPICS

- California's renewable future
- Energy efficiency and the California Energy Commission's demand forecast
- Improving electricity procurement
- Nuclear plant vulnerability to seismic/aging issues
- Evaluation of Self-Generation Incentive Program
- Progress report on past Integrated Energy Policy Report recommendations



CALIFORNIA'S RENEWABLE FUTURE

- Major barriers to renewable development:
 - Transmission
 - Integration
 - Contract delays/cancellations
 - Cost/rate impacts
 - Environmental permitting



RENEWABLE RECOMMENDATIONS

- Reduce obstacles to joint IOU/POU transmission projects
- Increase transmission-related R&D funding
- Identify amount and location of new fossil generation needed
- Work with California Integrated System Operator to understand amount of ramping/regulation needed to support 33% renewables
- Independent parties should review, select, and rank RPS procurement proposals
- Implement feed-in tariff for facilities 20 MW and smaller
- Estimate potential cost impacts of 33% target
- IOUs should consider potential delays from land use and environmental issues when selecting RPS contracts



EFFICIENCY/DEMAND FORECAST

- Need proper accounting of efficiency and other savings impacts in California Energy Commission demand forecast
- California Energy Commission undertaking major effort to update and improve methods in forecasting efficiency savings with assistance of CPUC/Itron
- Preliminary forecast released in February 2009, will include improvements in forecasting methods
- Progress report toward efficiency goals



EFFICIENCY RECOMMENDATIONS

- Address potential overlap between forecast and efficiency impacts assumed in program planning
- Establish and continue California Energy Commission working group to improve demand forecast during *2009 IEPR*
- Continue independent efforts on evaluating alternative forecasting methods in *2009 IEPR*
- Continue to work with POUs to understand remaining economic potential and targets; identify all funding sources available to meet energy efficiency goals



ELECTRICITY PROCUREMENT

- Progress toward *2007 IEPR* recommendations to use common assumptions, reflect risk, use longer analysis period, incorporate environmental impacts/risks, and discount future fuel costs
- Recommendations to improve procurement process
- Aging plant and once-through cooling issues



PROCUREMENT RECOMMENDATIONS

- California Energy Commission should continue collaborating in CPUC's LTPP proceeding and assess long-run uncertainties in 2009 IEPR
- CPUC should revisit social discount rates at later date
- California Energy Commission should evaluate impacts of relying on OTC and aging plants
- Procurement process should:
 - Be objective and transparent, with independent parties reviewing, selecting, and ranking bids
 - Consider environmental impacts, permitting, and prior bidder success
 - Be open to all bidders and avoid unnecessary costs that discourage market participants
 - Protect commercially competitive information



NUCLEAR ASSESSMENT

- AB 1632 requires evaluation of vulnerability of nuclear plants to disruption due to seismic issues or aging
- Also looked at waste storage and disposal, replacement power, relicensing issues
- Assessment done by MRW & Associates



NUCLEAR RECOMMENDATIONS

- PG&E and SCE should report in future IEPRs on research efforts into seismic and tsunami hazards; how plants comply with current building codes and seismic design standards; progress in returning to open racking arrangements in spent fuel pools
- California Energy Commission should work with CPUC to develop plan for reviewing the costs and benefits of nuclear plant license extensions, scope of evaluation, and the criteria for assessment



SELF GENERATION INCENTIVE PROGRAM EVALUATION

- AB 2778 requires California Energy Commission to evaluate costs and benefits of expanding Self-Generation Incentive Program to include renewable and fossil DG
- TIAX, LLC conducted evaluation using data provided by IOUs
- Looked at environmental, macroeconomic, and grid impacts



SGIP RECOMMENDATIONS

- Program eligibility should be based on overall efficiency and performance of systems, regardless of fuel type
- CPUC should consider reinstituting formerly eligible engine and turbine technologies that operate on non-renewable and renewable fuels
- CPUC should require IOUs to procure DG or CHP in areas that provide locational benefits to system



PROGRESS REPORT

- Evaluated 45 recommendations from 2005, 2006 and 2007 IEPRs
- Substantial progress in efficiency and transmission, some procurement issues
- Generally on-track in demand response, natural gas, transportation, petroleum infrastructure, nuclear, and water/energy
- Need improvement in procurement, renewables, land use and distribution system



QUESTIONS?